WHAT IS CLAIMED IS:

1. An electric parts drive circuit comprising:

a first field-effect transistor including in parallel a first parasitic diode for allowing an electric current flow into a plus line and provided between the plus line to be connected to a plus terminal of a battery and an electric part;

a second field-effect transistor for reverse connection protection including in parallel a second parasitic diode for allowing an electric current flow from the first field-effect transistor into the electric part, the first field-effect transistor and the second field-effect transistor being connected in series in order from the plus line to the electric part;

a third field-effect transistor including in parallel a third parasitic diode for allowing an electric current flow into the electric part and provided between a minus line to be connected to a minus terminal of the battery and the electric part;

a failure diagnosis switch unit for switching between conduction and shutoff between a drain of the second field-effect transistor and the plus terminal of the battery; and

a switch control unit for controlling switching between conduction and shutoff of the first to third field-effect transistors and the failure diagnosis switch unit,

wherein the switch control unit diagnoses a failure of the second field-effect transistor based on the voltage between the first and second field-effect transistors responsive to switching between conduction and shutoff of the second field-effect transistor in a state that the first and third field-effect transistors are shut off and the failure diagnosis switch unit is brought into conduction.

2. The electric parts drive circuit as set forth in Claim 1, wherein the failure diagnosis switch unit includes:

a PNP transistor having a connector connected via a first resistor between the plus terminal of the battery and the drain of the second field-effect transistor;

second resistors and an NPN transistor connected in series between the plus terminal of the battery and ground; and

third resistors connected in series between the switch control unit and ground,

wherein the connection point of the second resistors is connected to the base of the PNP transistor and the connection point of the third resistors is connected to the base of the NPN transistor.

3. The electric parts drive circuit as set forth in Claim 1, wherein the electric part is a solenoid in an electromagnetic valve of a brake fluid pressure controller for a vehicle.